A NEW ELECTROPION.

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THE medical use of electricity is much hampered by its many inconveniences. This is seen especially in the use of elements which have for their excitant the "red acid" fluid. In spite, however, of its destructive character and uncleanliness, and for the want of something better, it is in universal use at the present time. It is a compound of one part sulphuric acid, fifteen parts water, and one part bichromate of potash. When a physician views the havoc made by this preparation on his clothes, carpets, or buggy robes, he may well exclaim, remembering the cause, as did Spartacus remembering his wrongs: "I shall not forget it! But should memory fail, there are scars here to quicken it!" The portable battery has in many instances been replaced by stationary cells on account of this preparation which annoyed and troubled its owner. The acid fumes emitted, as well as the creeping salts, render the "red acid" element difficult to keep in good working order. Zincs are eaten away, carbons become encrusted, and repeated cleaning and realmagamating necessary with the renewing of zincs, makes this form of battery a nuisance. To those who have any experience with the "red acid" fluid it is not necessary to dilate upon any of its disagreeable features.

There would certainly be a hearty welcome given to any excitant that is cleanly, non-corrosive, and gives as strong a current.

This heretofore has not been accomplished, though attempts have been made over and over again.

My attention has recently been called to a new improvement in battery fluids, invented by Mr. Henry C, Beers, of this city, named by him "The Monogram Battery Fluid."

It is a strong solution (7 per cent.) of the sulphate of mercury, containing a trace of nitric acid, prepared in a special manner, its exact composition and mode of preparation being at present withheld for commercial reasons. It is a colorless, odorless fluid, of a high electro-motive force (1.7 volts), will not polarize, gives a strong and constant current, will not discolor the skin, and is harmless as to staining or destroying any fabrics with which it may come in contact. The zincs are kept automatically amalgamated, and a much greater quantity of current can be taken from a cell with a far less consumption of zinc than with the "red acid" fluid. Its electro-motive force is less to commence with than that of the "red acid" cell, but it is more constant. The rapidity with which the "red acid" cell runs down, soon makes them equal, the "monogram fluid" maintaining a long period of mean constancy after the "red acid" fluid has become comparatively useless. Should the elements be accidentally left in the fluid, the chemical action is so slight that the destructive action on the zinc is nil.

The following comparative tests were made by me between the "red acid" fluid and the "monogram fluid" on the 13th of October, 1890.

One cell, of the size ordinarily used in portable galvanic batteries, was used, containing two ounces of the fluid in each case. The elements were one each of zinc and carbon, three and one-eighth inches long, one inch wide, and three-sixteenths of an inch thick, separated from each other a distance of one-quarter of an inch. A Waite & Bartlett milliampère-meter, the same one for each test, was used; the resistance-box and conducting cords were also the same, so that the conditions and surroundings were in all respects alike in each test.

In the following table, the first column gives the time that elapsed after the immersion of the elements, an observation being taken every half hour for five consecutive hours. The second column gives the reading of the milliampère-meter at the time of taking the observations for the "monogram fluid," and the third column the same for the "red acid" fluid, one test following immediately after the other. Each zinc was carefully weighed before and after the test in which it was used. The "red acid" fluid was composed of one part sulphuric acid, fifteen parts water, and one part bichromate of potassium. Total resistance in the circuit, 28 ohms.

Time elapsed after immersion of zincs.	*"Monogram." Current in milliampères.*	*"Red Acid." Current in milliampères.*
½ hour	50	66
1 "	50	62
1½ "	50	53
2 "	49	50
2½ "	48	43
3 "	47	30
3½ "	46	20
4 "	45	15
4½ "	30	11
5 "	24	10
Total	439	360

"Monogram Fluid,"—Zinc Element.	*Oz.*	*Dr.*	*Sc.*	*Gr.*
Weight at commencement of test	2	0	1	18
Weight at termination of test	2	0	1	7
Loss in zinc in grains				11

"Red Acid Fluid"—Zinc Element.	*Oz.*	*Dr.*	*Sc.*	*Gr.*
Weight at commencement of test	2	0	3	15
Weight at termination of test	2	0	1	15
Loss of zinc in scruples (or 40 grains)			2	0

Total quantity of current—"Monogram Fluid"	439 m. a.
" " " " "Red Acid Fluid"	360 "
Extra quantity in favor of the "Monogram Fluid	79 "
Percentage greater in favor of the "Monogram Fluid"	22 %
Total percentage of quantity of current derived in favor of the "Monogram Fluid," taking into consideration the comparative consumption of zinc: "Red Acid Fluid," 40 grains; "Monogram Fluid," 11 grains	85.41 %

It will be seen by the above figures that the current given by the "monogram fluid," although not so forcible to commence with, yet, taking all things into consideration, is more constant and greater in force and quantity for a given length of time than that generated by the "red acid" fluid. The "monogram fluid" in five hours' time loses but little less than half of its strength, while the "red acid" loses a little more than seven-eighths, with a consumption of nearly four times as much zinc, or as 11 is to 40.

Considering the observation taken at the end of the fifth hour, it will be seen that the "monogram fluid" could have continued its work much longer, or as 24 is to 10, than could the "red acid" fluid.

The new fluid possesses the quality of cleanliness while it is devoid of the destructive and disagreeable characteristics of the "red acid" fluid.

CEREBRAL LOCALIZATION.

Ratenof (Bolnechnia Gazeta Bolkina, i., 1 and 2, Feb. 7, 1890) reports the case of a student, twenty-two years of age, who accidentally shot himself with a revolver. The ball, about eight millimetres in diameter, entered the posterior parietal region on the right side. The immediate effect, aside from the shock, was a complete loss of sight. There were no decided motor or sensory symptoms: the patient complained only of his blindness. The eyes seemed entirely natural, and the ordinary reflexes to light, etc., were normal. There was some general disturbance, fever, etc.; and the second day after the injury the wound was opened and probed to the depth of four or five centimeters, and the clot of blood that had gathered removed, and vision returned, with left lateral hemianopsia.

The patient survived the injury, with various symptoms of headache, epileptiform attacks, etc., six months, and the autopsy revealed softening of a triangular section on the external surface of the right hemisphere, extending backward from the point of entrance of the bullet near the posterior extremity of the Sylvian fissure, and involving the posterior end of the superior parietal gyrus and the upper occipital gyri. On the surface of the left hemisphere the occipital gyri were involved to the apex of the lobe. The description of the internal faces of the hemispheres is not clear, but the cunie must have been implicated in both hemispheres. The bullet, somewhat altered in shape, was found in the left hemisphere.